# CACTUS AND SUCCULENT JOURNAL

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Photo by A. B. Clayton

*Phellosperma tetrancistra*

(See page 451)

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*Managing Editor,* SCOTT E. HASELTON, 6162 N. Figueroa St., Los Angeles, Calif.
*Advertising Manager,* G. A. FRICK, 1800 Marengo St., Los Angeles, Calif.
*Editorial Staff:* JAMES WEST, 745 Fifth Ave., San Rafael, Calif.
ERIC WALTHER, 2667 McAllister Ave., San Francisco, Calif. EDGAR M. BAXTER, Bellflower, Calif.

VOL. V OCTOBER, 1933 No. 4

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# Plant Registration*

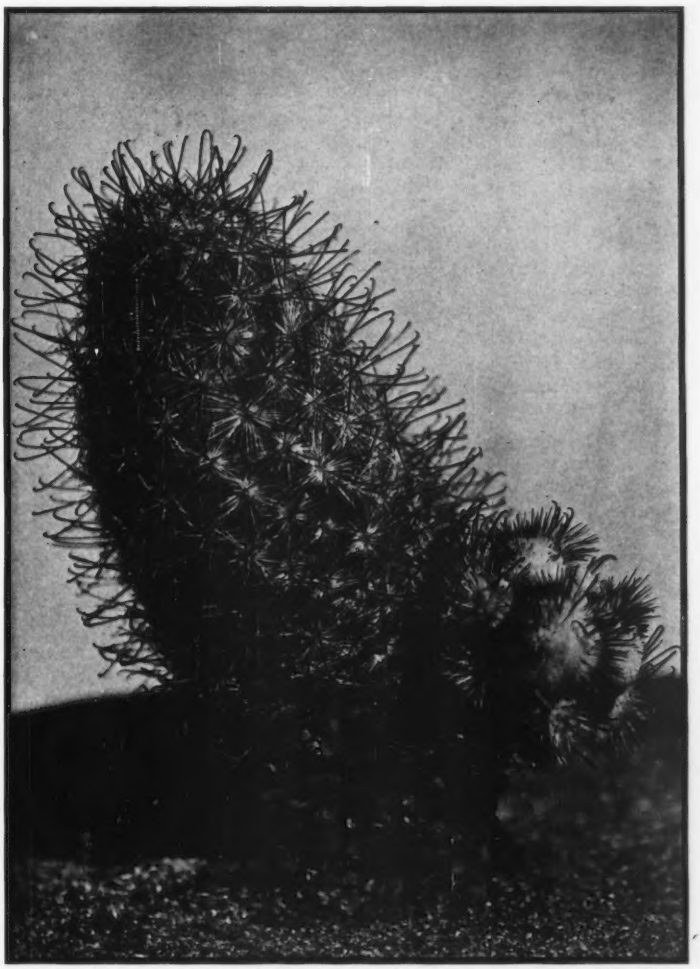
At a meeting held October 2, the Executive Board passed a motion authorizing the establishment of a permanent A. C. S. S. committee of plant registration. As outlined at this meeting, the duties of the new committee will be to prepare a check list of cacti and other succulents which are available to collectors. Registration of a plant is to include an adequate description, as well as illustration by photographs or herbarium specimens or both. Each plant registered will be assigned a permanent identification number and the use of these numbers for referring to their respective plants in collections, at shows, in printed articles or elsewhere is made official by our Society. President Adams appointed Dr. R. W. Poindexter chairman of the new committee.

Progress is to be reported from time to time thru these columns. The committee will welcome the assistance of members who can cooperate by sending in photographs and descriptions of plants for registration. These may be mailed or handed to Dr. Poindexter or any member of the executive board. Each description, as registered, will carry into the record the name of the first person to furnish it, as well as the source of supply indicated by him.

As the list becomes sufficiently extensive, it is planned to furnish an identification service to members who have plants they wish to know more about. For this purpose, the file will contain references to original descriptions and to names and synonyms which appear to refer to the plants registered. Although the committee is not authorized to identify a plant beyond quoting its registration number it may thus be possible to furnish an inquirer with references which will enable him to classify it satisfactorily.

It is believed that a further important service can be rendered to members thru this check list. Since the registration of each plant will include the quotation of one or more sources of supply, the list will enable members to round out their collections along the particular lines they are interested in and incidentally benefit those who have surplus plants to offer.

*Cactus Journal, Vol. V, No. 2, pp. 421-424.



*Phellosperma tetrancistra* Photo by H. A. Morley

*This specimen is starting a monstrose growth. The resemblance of this and other one- and two-central spined specimens to* ***Neomammillaria microcarpa*** *has caused many reports of this latter species' occurrence in California. When the central spines are less than four they are heavier and shorter. A four-central spined plant will have its spines two to three times as long as this specimen and they will be twisted and much more slender.*

# California Cacti

## VIII. *Phellosperma tetrancistra*

By E. M. Baxter

The long name of this little cactus, when broken down into its parts is really descriptive of the plant. "Phellosperma" gives us "corky seed" and "tetrancistra" means "four spines". The little corky tip on the seeds of this cactus is an easy mark of identification because the plant has seeds on it nearly half the year when protected. The seed pods are red, about ¾ inch long, smooth, and very slender.

"Four spines" refer to the black central spines

of each cluster. They are hooked and are generally four in number, although that is not a constant character, varying from one to four. The other spines (radials) of each cluster are white with a slight darkening at the tip, and are so numerous as to hide the body of the plant. Both centrals and radials are slender compared with other local pincushion cactuses.

The main stem of the plants is unusual in that it is extended into the ground as a thickened root in the shape of a carrot. The part above the ground is rounded or oval, an inch or two to several inches high. At times the plant may form a cluster of small heads or may divide into two or three larger heads. The species is related to the neomammillarias, and like them has its body covered with tubercles. These are not grooved on the upper side.

For such a small plant the flowers are unusually large, and are a beautiful orchid or rose color. They originate in the space between the bases of the tubercles and extend an inch or more above the surface of the spines.

This species has a wide range throughout Southern California as well as in Utah, Nevada, and Arizona. Along the border of the State at the Colorado River it extends north to Inyo County and south to the international boundary. Westward it may be found all through the Mojave and Colorado deserts to Victorville and Banning respectively. While not abundant, it may be found on hillsides and the banks of washes throughout this range. Collection of specimens is prohibited, but seedling plants grow fast and will furnish collectors with good specimens in a short time.

The genus *Phellosperma* was described by Britton & Rose in the fourth volume of "The Cactaceae", but the species was first named in 1852 when Engelmann called it *Mammillaria tetrancistra.* Later he named another plant, *Mammillaria phellosperma,* but the two are now known to be the same and because of the unusual seed the species has been classed as a separate genus from *Neomammillaria,* a genus that it resembles in most characters.

Plants are difficult to grow, but if transplanted into a garden they should have an exceptionally well drained location, be sparingly watered, and if possible should be planted in pure decomposed granite. Spring and early Summer are the best times to plant them, later plantings almost invariably become rotten.

## FRICK'S NOTES

In the code of business ethics formulated by the nurserymen of the Pacific Coast in compliance with the N.R.A., are two lines that should be obeyed 100%, and its enforcement demanded by the trade. Here are lines one and two of the paragraph on Plant Guarantees. "Growers must exercise every care possible to have stock true to name and up to grades and standards recognized by the trade." One of the worst abuses of dealers in the past has been the substitution of species that are more or less common for the rarer sorts, when out of the latter.

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The juice pressed from the fruit of *Opuntia Engelmannii* is prepared and boiled into a palatable syrup by the Mexicans living along the Rio Grande River where this species occurs. The finished product is one-fourth of its original volume and is made extra sweet by adding one-sixth its weight of cane sugar. Sandwiched between two tortillas it is said to be very tasty.

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The introduction of Cactus into Europe began soon after the discovery of America. Spanish, Dutch and English traders who early carried on a commercial business with the new world took back to their respective countries curious plants then new to Europe. These were commonly known as thistles, probably from the spiny character of their protective armor. The globose forms were called melon thistles, while the cylindric forms were all known as torch thistles until Linnaeus published his SPECIES PLANTARUM where he recognized 22 species all under the generic name of Cactus.

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The Papago Indians of Arizona use the pulp from the stems of *Opuntia basilaris* as an astringent which quickly heals a cut; also a poultice of this softens callouses on the feet. Placed over the eyes during sleep it is supposed to strengthen them, while on hot days if bound about the head avoids headache and averts sunstroke. Applied locally they claim it stops stomach ache. However, when the Indian really gets sick he always seeks the white man's medicine.

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A lithograph poster displayed in the window of a Los Angeles mission shows Christ, the great shepherd, holding a lamb in his arms while herding a flock of sheep. In the background of the picture, growing on a bank is shown a clump of Opuntia laden with ripe fruit ready for the harvest. The artist that made that picture guessed wrong by just about 1500 years. The Indian Fig, *Opuntia ficus-indica* was introduced into the Mediterranean at a very early age but not that early by far.

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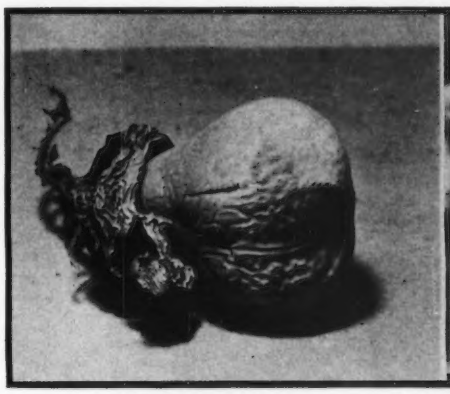
Sheep men of Montana complain that *Opuntia fragilis,* which has small rotund joints that break off from the main stems easily, has become a perplexing pest in the grazing lands of that state. Sheep feeding on the plains rub their lips against the spiny joints which penetrate the flesh about the mouth and are only detached with the greatest difficulty. In this condition further grazing is impossible for the unfortunate animal resulting in their death by starvation, when not discovered by the herder.



*Dinteranthus Pole-Evansii* (N. E. Br.) Schw. as imported. x 1.

*Dinteranthus microspermus* Schw. Second pair of leaves emerging. x 1.5.

# *Mesembryanthemiscellany*

## A Menzies In The Tradition—Exciting Import—A Curse On Thieves

*By* JAMES WEST

Photos by Author

The good old Scottish clan of Menzies (pronounced *Mingis* by purists) has for generations back produced plant-lovers, botanists and gardeners. It seems to be in the blood. Californians should at least know of Dr. Archibald Menzies, surgeon-botanist of Vancouver's expedition, who was the first to make known so many of our best-loved and familiar plants, for instance *Arbutus Menziesii,* the Madroño.

What some might think was less meritorious, he introduced *Araucaria imbricata* to cultivation, through one of those little quirks of fate which so often give charm to the history of plant introduction. At a state dinner which the governor of Chile gave to Vancouver and his officers in Santiago, some unknown "nuts" were served along with, no doubt, many other good things. Dr. Menzies being what he was, promptly slipped a few into his vest-pocket and sent them to England, where they ultimately developed into that famous Victorian plague—the Monkey Puzzle tree on the lawn.

The connection between all this and *Rimaria Heathii* may seem a bit obscure, but what we have been trying to lead up to is the fact that Southern California harbors a true chip of the old block in Arthur Menzies of Hollywood, who sends us the accompanying picture of that plant in flower. A couple of years ago the plant was mentioned as hard to flower*. Well, here it is, a product of careful culture. Let no man say that nothing good ever came out of Hollywood!

As long as we are on the subject, a few amplifications of the above-mentioned article may be pertinent. In addition to *Rimaria* it also concerned itself with the genus *Dinter-*

Flowering plant of *Rimaria Heathii* in collection of Arthur Menzies, Hollywood.

*Cactus Journal, Vol. I, 206, May, 1930.

*Rimaria Heathii* N. E. Br. New growth nearly completed. x 2.

*anthus. D. Pole Evansii* (N. E. Br.) Schw. was there mentioned, being then not in cultivation here. It is still very rare, but at least we have it. The picture shows an imported specimen *just as it looked when it arrived from South* Africa, showing reasonably well the granular surface structure which distinguishes the genus from *Lapidaria;* by this is not meant the wrinkles, which are a result of its having been shipped in the South African midsummer *combined with shrinkage in transit, but the minuter* granulation visible on closer inspection. The beautiful dove's-breast color is one of its attractions. The domed, faintly keeled shape of the growth is a characteristic feature as distinguishing the genus from *Lapidaria* on one side and from *Rimaria* on the other. As it may be interesting for the sake of record, we hope that the Editor will find place for two additional photos of the same two plants reproduced in May 1930. The *Lapidaria* was at the time 2 years old, having been sown in May 1928. It had made one new pair of leaves each year until the summer of 1932, a little more than 4 years from seed, when it suddenly divided, and during September and October made 7 new growths or leaf-pairs, quite small compared to the older ones, which were used up in the process. The present photograph was taken October 16, 1932. The plant has never flowered. The picture of the *Rimaria* was taken in the season after the one published in 1930. It shows what a swan can develop out of an ugly duckling. The fresh color of the new growth and its clean form were most attractive. Someone else thought so too evidently, for its place is empty, as the plant was "liquidated."

*To come back to Dinteranthi for a minute,* they are still as common hereabouts as big dividends from stocks of the late lamented Coolidge Era, but *D. microspermus* at least is now seen in the better collections. A lovely plant *it is, remarkable not only for looks, but also for a number of other things.* Whether because of its microspermousness or not, it is one of the very few species in the entire tribe difficult to raise from seed. For one thing, the germination is remarkably slow; while one may expect almost any Mesemb to come up freely in anything from 4 or 5 days up, this one has been known to delay germination for 18 months. Even then the trouble is only beginning, for the tiny seedlings are as uncertain in temper as Mme. Jeritza. You cannot tell what they will do, except that it will not be to grow freely. Not impossible though, as this plant expertly raised at Soldena Gardens, shows. It is in the throes of making a new pair of leaves. One can just see how it is trying to make up its mind whether to be a *Lithops* or an *Argyroderma.* This uncertainty prevails even more in the seedling stage. While in the adult plant the leaves are quite separate, as in an *Argyroderma,* unlike the latter but as in *Lithops,* the cotyledons of seedlings are represented by a connate body with a slit, which slowly develops into the first leafpair. In *Argyroderma* a pair

of thick, but separate cotyledons produces a first pair of true leaves of the normal adult type. For the first year or two the *Dinteranthus* seedling still shows a connate body with a slit at the top. This was the stage of the leafpair just being discarded in the photograph, the young pair at last, as may be seen, separating into two separate leaves.

*Lapidaria margaretae* x 1.

*A few months later the plant, the only one in* the collection and apple of our eye, was getting ready to flower. At last, thought we, we will get a flowering *Dinteranthus* for the Journal. In our mind's eye we already could see a beautiful reproduction adorning the sacred pages. *It was not to be, and hereby hangs a tale. One morning* we entered the greenhouse to take a look, but no *Dinteranthus*. In the accustomed place nothing but a scrap of rootstock in an empty pot. The thief had wrenched it off its root, evidently to slip it into a handy pocket unobserved. The conscienceless scoundrel was not content to steal; one could possibly forgive a kleptomaniac who was a real plant lover. But such a one would have at least seen to it that the object of his crime would live, and taken the whole pot along. Not so this black-hearted wretch. The same individual likewise abstracted a branch of a cherished *Hoodia, not cutting it off with a sharp knife like a human being* but tearing it off like an ape of the jungle, bad cess to him or her. If these lines should per-*chance meet the scalawag's eye, in a public* library perhaps, for no such person could be a subscriber, may he know himself cursed with a good old-fashioned curse: May he and his children and his children's children for ever and aye be condemned to raise Dinteranthi and *Hoodias from seed by the hundred thousand,* in a damp, dark, dripping cellar on a solid concrete seed-bed, in icy drafts, in an atmosphere saturated with all the fungi and bacteria in the world; and have his thieving fingers pinched with red-hot tongs for every seed he fails to raise. Anathema. Yes, there was contributary negligence. The greenhouse was unlocked.

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Writer Helen W. King informs us that a Cactus and Succulent craze has hit Japan with such force that it is astonishing to see the number of potted Cactus and Succulents everywhere in a visit to that country.

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Milwaukee in Wisconsin is famous for its beer even to Cactus collectors, but few of them are aware that this same geographic location is the eastern edge in which *Opuntia fragilis* has been found to occur.

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Subscribers to the National Geographic Magazine were treated in last month's issue to the perennial blunder of naming a Euphorbia a Cactus. On page 176 is shown a full page photograph of *Euphorbia lactea* named a Cereus.

Illustrations of Cactus plated in either copper, brass, silver or nickel are shown in the Copper and Brass Research Bulletin number 64. These make beautiful art pieces and once the plant is plated the metal crust always remains the same even though the plant dies and shrivels up.

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A Cactus park that will be the greatest showing of Cactus in the world is the aim that the Director of Parks of Mendoza, Argentina is striving for. Hundreds of plants are being brought down from the mountains, including several specimen plants of *Trichocereus terscheckii* weighing over one ton. It is claimed that the landscaping of this park is being done on the largest scale ever undertaken by anybody for the exclusive showing of Cactus.

## FRICK'S NOTES

Science is today perfecting an artificial sunshine and heat to lengthen the growing days of plants in hothouses. Now if scientists will only find some way of throwing Cactus spine barbs into reverse so that they enter with difficulty and are extracted with ease, we will feel that they have accomplished something worth while for which we will owe them a lasting debt.

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Ellen Schultz Quillin of San Antonio, Texas writes: "I am certainly complimentary to the management of the Cactus society in keeping the JOURNAL on such a high standard and at the same time of interest to all."

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An advertisement in a South African newspaper states, "WINTER EXCURSIONS from June 13th to July 4th between all S. A. Ry. stations." That explains why our mesembrianthemums look so poorly during our summer in North America.

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An invitation to the membership of the Cactus & Succulent Society to visit the Rancho Santa Ana Botanic Garden has been extended by member Mrs. Susanna Bixby Bryant. Visitors will be admitted by card only, obtained by written request addressed to: Mrs. Susanna Bixby Bryant, 3210 West Adams St., Los Angeles, Calif. You are asked to secure your visiting card as far in advance as possible as the number of visitors are limited for each day. Three hours at least should be allowed to go through the several departments open to visitors. Those wishing to bring picnic luncheons may reserve tables and benches in the Garden Picnic Grounds. Directions will be mailed with the cards.

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How Euphorbias respond to the heat of Imperial Valley, the United States' hottest spot, was told by member Mr. Kamiya of El Centro, California. Growing under laths with plenty of moisture, all species identity is lost in the rapid growth this generic group makes.

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Are botanists as considerate of the public in the naming of plants as they should be? Botanic nomenclature shows no traces of such feeling, complains a local florist when his attention was called to a potted plant of *Trichocereus schickendantzii* in his window labeled "Serious Chicken and Sis."

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If this item doesn't appear practical to you, take it for what it is, a "fish story." Member J. L. Swift of Winston-Salem, North Carolina writes that he has a specimen plant of *Echeveria rosei* 18 inches in diameter that stands 15 inches high. Here is his secret for producing this remarkable growth. Mr. Swift loves fishing, all those fish he catches that are too small for table use are buried close around plants in his garden. For four years this plant has been fed on a fish diet. A photograph of the plant shows it to be of unusual size.

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Scientists find that the waxy armor coating of the Crassula family is a protection against water loss which the plants need to carry them through the droughty periods of the desert to survive.

The new book on the Asclepiadaceae by Alain White and Boyd L. Sloane is nearly ready for distribution to the trade. This will be the most exhaustive, as well as best illustrated work yet published on this genus of plants, but will be nothing compared to the outstanding triumph awaiting the person that creates a sweet-scented Stapelia flower.

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A potted *Cephalocereus senilis* displayed in the window of a San Francisco barber shop has a neatly painted show card on it which reads "This old man Cactus never has had a haircut. Don't be a Cactus, come in. No waiting."

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News of another conviction for the violation of the Arizona Cactus conservation law has been received. Anyone of the opinion that this Arizona law hasn't "teeth" we suggest they write to Harriet Jean Oliver, secretary of the Arizona Agriculture Commission at Phoenix. She is a very amiable person until Cactus are mentioned.

And in connection with this item, an Arizona peace officer takes exception to a statement made in one of my items in the August issue of the JOURNAL wherein the jails of Arizona are declared "lousy." Here is his protest. "It is evident that you have never been in an Arizona jail or you would know that they are not lousy. They are infested with scorpions and centipedes but by golly there are no lice in them."

Well that makes a difference. I must admit my information emanated from hearsay and I therefor ask the pardon of the keepers of all Arizona jails.

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The food problem of the poor has been solved by a Southern California woman. The slogan is "Eat Yuccas if Yuccan."

Yuccas are not plentiful and only flower once in a lifetime of about ten years, so we expect the poor must continue to gaze through bakery windows and crave.

Here is the recipe if by any chance you are the one person out of the 125,000,000 in the United States that will have the opportunity of getting a flowering stalk.

> BOILED YUCCA—Secure stalk before the appearance of the buds and peel off the tough rind from the portion you expect to cook. Cut this in asparagus-stalk lengths and slit to desirable thickness. Boil in salted water until tender and serve with drawn butter or a cream sauce, exactly as one does asparagus. Each stalk is so large that it will serve several meals.

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K. C. McMurry of the University of Michigan is the chairman of a recently appointed committee of the division of geology and geography of the National Research Council on land classification that will study recognition of lands of doubtful productivity so that they may be removed from further fruitless attempts at cultivation. Any lands that produce Cactus are considered more or less of agricultural value providing water is available.

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**The following 8 pages are reprinted from "The Cactaceae" by N. L. Britton and J. N. Rose.**

# Notes on Britton and Rose

*Edited by* E. M. BAXTER

RIGHT: Opuntia herrfeldtii *in flower in my garden at Bellflower. Note the rounded outer perianth segments, which seem to indicate a plant that is from high elevation and consequently quite hardy. The numerous fruits are easily dislodged and are forced off by the new joints if they remain on until the following Spring.* LEFT: Opuntia rufida *in flower. The shape of the joints, the color of flower, and the characters of the flower differ widely from those of* Opuntia herrfeldtii.

## *Opuntia herrfeldtii* Kupper

A specimen of Opuntia received from Paul Weber's Nursery on Ventura Boulevard in Van Nuys has been identified as this species. As it is to be found in numerous California gardens this translation of the original description is given.

It has been labelled "Opuntia rufida" in several collections, but is probably distinct from that species, although most of the specimens of *Opuntia rufida* in Southern California gardens do not agree with the type material of that species. Further material is being collected that may shed some further light on these two species and on *Opuntia lubrica.*

Flowers of the newer species have been observed to be yellow, fading pinkish. Fruits ripen and are dislodged easily and then give rise to new plants. When this happens the seeds are absorbed and the fruit takes on the nature of a stem by growing solidly through with flesh. Mature fruits are green with a reddish tinge on the side facing the sun. They are densely pubescent. Seeds are small, brownish, and very few in number in the fruit.

The following is translated from the German by Mrs. Kathe Schlange from material in the library of Mrs. Ysabel Wright at Montecito, California:

From MONATSSCHRIFT DER DEUTSCHEN KAKTEENGESELLSCHAFT 1930, p. 212-214.

### A BEAUTIFUL NEW OPUNTIA— OPUNTIA HERRFELDTII

*By* W. KUPPER, Munich, Germany

"This Opuntia is not so very new because for some time it has been found in different collections under the name of *Opuntia basilaris.* For some time I have noticed that this Opuntia has a different habit of growth than *Opuntia basilaris,* which generally sends out young joints from the base of the plant and so builds up a

cabbage-head colony of long joints; these joints are called 'ox tongue' in California. If one sees some of these dried out imported *Opuntia basilaris* joints, one gives full credit to the name chosen for these joints.

"The new species which I will now describe does not in the least resemble an 'ox tongue', but is very different in growth habit. It sends out new growth from the upper margins of the joints, mainly from those which are turned towards the light. As there are so many forms of *Opuntia basilaris* I did not want to bring in a new name for this Opuntia without having proved it enough. Meanwhile I was able to study this plant thoroughly; I had plant material from Mr. Walter Herrfeld who has specimens of this Opuntia flowering profusely in his garden in Bordighera. He sent me plants with buds so that I had the opportunity of studying the flowers. I have named this species *Opuntia herrfeldtii* for him.

***"Opuntia herrfeldtii* n. sp."**

"Fruticosa dense ramosa erecta glauco-viridis; articulis magnis orbiculatis glochidiis pulchre brunneis ornatis puberulis, aculies o floribus luteis.

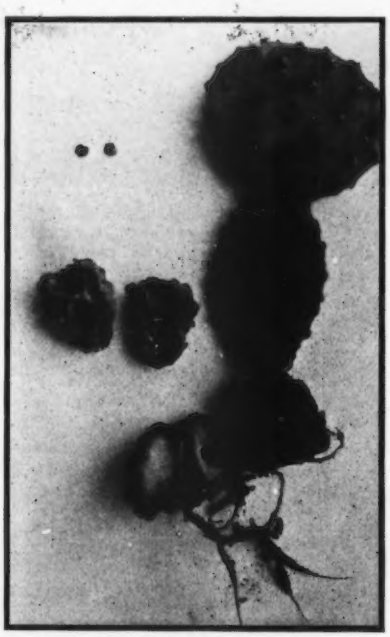
"Many branches, bushlike, upright to 1 m. high. Joints circular, sometimes wider than long, but when grown in darker places joints very often become longer than wide. Joints to 16 cm. in diameter, finely pubescent, velvety, from green to pale bluish-green in color, older joints grayish-green. Leaves awl shaped, green, slender, to 5 mm. long. Distance of areoles on flat side of joint 1 to 1.5 cm. Areoles circular, 2 to 3 mm. in diameter; these nearer together towards upper margin and there larger, 4 to 5 mm. in diameter. At the upper margin are 3 to 5 areoles sometimes grown together to one very long one and bearing short, brilliant chestnut-brown glochids. No spines.

"Flowers 5.5 cm. long. Ovary about 18 mm. long and of the same thickness. Petals to 3.7 cm. long, flower when open to 7 cm. in diameter, sulphur yellow. Outer petals sometimes have greenish to reddish midrib. Petals are broadly spatulate. Filaments white, longest ones 17 mm. long. Anthers sulphur yellow. Style 22 mm. long, white, swollen towards base, there 5 mm. in diameter. Stigma lobes 7, folded together, 2 mm. long. Ripe fruit not seen, but young fruit has deep umbilicus and bears circle of white woolly tufts around upper edge.

"Although this Opuntia has an erect growing habit as very many larger jointed platyopuntias have, it is a very characteristic plant because it bears as many as 6 new joints out of the upper margin of one old joint. In this way densely bushy plants of little height are formed.

"I secured a flowering specimen of *Opuntia basilaris cordata* so I was able to compare the two flowers. The flower of *Opuntia basilaris cordata* is much larger, deep pink rose, the ovary long, the seed is about 4 times as large as in *Opuntia herrfeldtii*. A relationship with *Opuntia basilaris* is, according to these differences, not possible.

"However, *Opuntia herrfeldtii* is very noticeably related to *Opuntia rufida*. I did not have a flower of *Opuntia rufida*, but according to Britton & Rose the flower is even smaller and darker yellow. *Opuntia rufida* not in flower shows enough difference from *Opuntia herrfeldtii* that the two species are very easy to distinguish. *Opuntia rufida* always has somewhat oblong joints, on well developed plants the



Opuntia herrfeldtii. *Photograph shows: 1. in upper left corner are two miniature seeds taken from fruit shown in center left. 2. Mature fruit cut in two. 3. Plant of two joints grown from fallen fruit. The fruit has been cut twice to show the absorption of the seeds and the fleshy nature that it takes on with growth of the plant. Both fruits are taken from the same seed at the same time. The growing one was on the ground while the other was not. The photograph shows the features at approximately half size.*

length is up to 25 cm., but usually joints are shorter. Although *Opuntia rufida* sometimes brings out circular joints they are never so uniformly rounded as in *Opuntia herrfeldtii.* The areoles in *Opuntia rufida* are much smaller, the glochids somewhat reddish-brown. A main difference of these two kinds, in living room as well as glass house specimens, is that *Opuntia herrfeldtii* is much more hardy. Grown in gardens at the Riviera in Italy, although the temperature often goes down to –4 degrees C., it flowers very early and profusely. Cut joints after being planted one year bring long rows of flowers along the margins of last year's growth.

"*Opuntia rufida* is not as hardy and apparently hard to flower. Mr. Herrfeld, who also grows *Opuntia rufida* outside, never had any flowers on his plants.

"The distribution of *Opuntia herrfeldtii* is not known. Mr. F. Schmoll, Caderayta, Mexico, to whom I showed this flower, believes he has seen it in Queretaro, but on account of its resistance against cold, one would think it to be at home in more northern or higher regions than the home of *Opuntia rufida,* whose distribution is in New Mexico and Texas (according to Britton & Rose).

"The new species is illustrated in Kupper, DASS KAKTEENBUCH 1919, under *Opuntia basilaris.*"

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On Saturday, July 28, Mrs. Neff Bakkers of San Diego, presided as co-hostess, at the opening of Cactus Week at The Chicago Century of Progress. With assistance of the staff, and Mr. Frank Balthis of the Succulent Department of Garfield Park, Mrs. Bakkers had arranged a replica of a scene of the Mojave Desert of California, decorating the walls with original color plates from the great monograph, THE CACTACEAE, which the Cactus Journal is now republishing. The high light of Mrs. Bakkers' report relates to the formation of another group, the Chicago Cactus Club. She will give a verbal report at a later meeting.

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Dr. Leon Croizat writes that he will publish an interesting original description in the CACTUS JOURNAL next year. He came across a Rhipsalis in the greenhouse of the New York Botanical Garden. Altho fully labeled, he was unable to find that its description had ever been published. Eventually he spoke to Dr. Britton about it and found that it was part of the original Britton and Rose collection, but arrived too late to be included in Vol. IV. Dr. Britton commissioned Dr. Croizat to publish it, which he will do as soon as the plant blooms again to enable him to get the complete description. It is said by those who have seen it to be a fine species, that grows well and flowers freely.

The name Cereus is from both the Latin and the Greek, signifying a torch, with reference to the candalabrum-like branch of the first specimen seen about the year 1600. Philip Miller in 1768 described 12 species of Cereus in his GARDENERS DICTIONARY which we now know belong to altogether different genera including *Rhipsalis* and *Opuntia.*

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Hundreds of young men located in the two emergency conservation work camps in the Grand Canyon National Park are daily being taught lessons in conservation, including the fact that cactus is not an obnoxious or pernicious plant. These lessons are under the guidance of the best of landscape architects and practical desert engineers.

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Cacti growing in a room soon show a tendency to elongation of a tender growth in the direction of light. This does not prove that the plant is endowed with a brain or nervous system as sentimental people would have us believe. Instead, it is the living matter "protoplasm" as the biologist calls it, which is deeply affected by the blue violet rays which the plant needs that makes it bend its tip toward the light.

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Two vacationing high school students made camp under a mesquite tree in Arizona last August. During the night they awoke to find two very large white flowers beside their bed that were not there when they lay down that evening. The following morning the plant was uprooted and placed in their car.

The school attended by these boys publish a monthly paper called the "Eagle's Scream", which had a full column notice last month of the discovery of a new species of Cactus by these same boys instead of correctly stating that the Cactus had discovered the two boys.

The writer was sent for and requested that an examination of the new species be made. I informed them that the name of the plant was *Peniocereus greggii* and that it was fairly common; from the remarks and ugly expressions on all the boys' faces I at once realized that I had made a mistake, and to avoid being ganged, made a hasty exit. After giving the incident further thought it has been decided that here and now I wish to go on record that forever in the future when a high school student discovers a new species of Cactus, that plant will be a new species to me also. I will even swear to it under oath.

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At a public auction of unclaimed baggage auctioned by the Southern Pacific R. R. last month, a bid of $3.00 bought a securely locked trunk. When the lucky purchaser got his bargain home and opened it, he did not find clothing and other personal effects as one would expect to find in a trunk, but instead he discovered to his surprise that he had bought a trunk full of Cactus. All were different and among them were some very curious specimens that greatly aroused his admiration. And thus we have gained another member.

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A visit to any cactus dealer's nursery will show the healthy gain made in the past five years for conservation. About one-third of the plants offered to the trade today are seedlings, one-third are cuttings and the other third are field collected plants. Five years ago this percentage would run about 90% desert plants to about 10% cuttings.

## NOTES ON MESEMBS

*From* LOUISA BOLUS

Curator, University of Cape Town

"Mesembrianthemums. Greek, *mesembris*—middle of the day; *anthemum*—flower. The name is a happy one, since the larger number, and those with the greatest profusion of bloom, are at the height of their glory when the sun is hottest. On a sunny morning in early summer they open as early as nine o'clock, prepared to radiate their beauty until the sun's decline. Other species keep very different hours for waking and sleeping, and, at certain seasons of the year, one could arrange a complete floral clock, selecting one or more of the species for each of the 24 hours. Some refuse to arouse themselves until the clock strikes one. Others are not ready to open until about four, and scarcely wait till dusk (to close). The fragrant vespertine species in white, pale pink, and varied tones of yellow, may keep their torch alight till ten o'clock or later, but the night flowering ones prolong their vigil till early morning."

### The Translucent or "Windowed" Mesembs. Sandlovers.

"In Lithops (stone face) the body tapers slightly downward, and is buried in the ground, and the broader apical portion, becoming rather convex and translucent or windowlike, allows light to penetrate to the tissues beneath. These 'windows' are usually decorated in some way, either with lines or dots of contrasting color, or with rounded protuberances or with wrinkles. Frequently they so harmonize with the surrounding ground in form and color as to be very difficult of detection.

"Several genera adopt this device of seeking refuge in the ground from the too ardent rays of the sun, and the drying effect of the winds, and have a 'window' at their leaf tip. A very charming one is *Frithia pulcara,* found near Rustenburg, Transvaal. Here even the sepals have their 'window'."

### Baby Toes

"Two other most interesting examples are the golden and the white flowered species of *Fenestraria* (fenestra—a window), both growing in sand. A picture of *Fenestraria rhopalo-phyllum,* Baby Toes, portrays a landscape with several specimens, their 5-to-10 or even more leaves to each plant peeping out of the sand like the eyes of the sand lizard or sand viper, which often hide themselves in this way. *F. aurantica* sends its long branches out in all directions, in the sand, underground, pausing at intervals to form a tuber at a node, and sending up a branchlet, with 6 or 8 (club shaped) leaves to peep out at the surface.

"Among the sand lovers, too, are the annual species—notably the charming *Dorotheanthus criniflorus,* making the wastes glisten with pink, crimson, yellow and white, as far as the eye can see. Their whole life-cycle from germination to seeding and death extends from August to November, and is completed *before the summer is well begun."*—J. M.

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Culturally it is well to know that *F. rhopalo-phyllum* (Baby Toes) prefers to stagger in sand up to her neck. We lost several plants before we came on this item.—J. M.

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Now that victory is in sight in the struggle between the Opuntia and the Australian agricultural administrators, scientists warn that there is one species of Opuntia that is not completely killed by the attack of *cactoblastis,* the insect member E. Mortensen of Pearsall, Texas discovered for the Australian government. The caterpillars of cactoblastis destroy all overground growth, but one species of Opuntia has underground bulbous roots that can renew the growth. The question now arises whether the cactoblastis will linger on the job in sufficient numbers to do a complete job of mopping-up on the surviving new growth. Another problem is, when the Cactus are about gone but only a few left, what is to become of the cactoblastis? Ask the entomologists of Australia. They too have their enemies that attack them in the egg, caterpillar and crysalis stages. These, however, have not been sufficiently numerous or active to check the beneficent insect during the great increase in its numbers which accompanied its major drive against the Opuntia, but they may catch up with it now that a reduction in food supply necessarily brings on a diminution in its numbers. So the Australian entomologists are seeking secondary parasites that will act as enemies to the enemies of the cactoblastis.

Rest assured that the Australian government will see to it that the Opuntia will be finally and completely routed.

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Spineferously speaking, Dr. L. E. Glasser of Blackfoot, Idaho, is invincible. He writes that his only recreation is the collection and care of Cactus while his letter head informs us that he is a chiropractor.

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To complete the files of the JOURNAL, copies of the July 1931 issue are needed and requested. This number was distributed too freely at the San Francisco Cactus show held that month, and there should be several copies available from the bay district.

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Because *Ceropegia crispata* and *C. stapeliaeformis* possess a rather tooth-some taste, they are eaten raw and with much relish by the natives about Kimberley South Africa. Not only do the natives gather and eat them but even the servants in the better homes go so far as to steal the tubers off cultivated plants, which is making these species very rare as a consequence.

# What Grows Where

**Cacti Listed in Accordance With Their Geographical Origin**
**Compiled and Copyrighted for Mrs. John D. Wright, Santa Barbara, Calif., 1933**

*By* ANNE SMITH

## FLORIDA

## PERESKIEAE

**PERESKIA**

*P. pereskia*
TYPE LOCALITY: Tropical America.
DISTRIBUTION: West Indies and along the east and north coasts of South America; found also in Florida and Mexico.

## OPUNTIEAE

### OPUNTIA

**Subgenus Platyopuntia**

**Curassavicae series**

*O. abjecta*
TYPE LOCALITY: Edge of hammock, southern end of Big Pine Key, Florida.
DISTRIBUTION: Known only by Type Locality.

*O. drummondii*
TYPE LOCALITY: Apalachicola, Florida.
DISTRIBUTION: Sandy soil from northern Florida to Pamlico Sound, North Carolina.

*O. tracy*
TYPE LOCALITY: Biloxi, Mississippi.
DISTRIBUTION: Southern Mississippi, southeastern Georgia to northern Florida.

*O. impedata*
TYPE LOCALITY: Sand dunes, northeastern Florida.
DISTRIBUTION: Collected on dunes at Atlantic Beach, Florida.

**Pisciformes series**

*O. pisciformis*
TYPE LOCALITY: Sand dunes, estuary of the Saint Johns River, Florida.
DISTRIBUTION: Collected on dunes at Atlantic Beach, Florida.

**Tortispinae series**

*O. lata*
TYPE LOCALITY: Twelve miles west of Gainesville, Florida.
DISTRIBUTION: Pinelands, northern peninsular Florida.

*O. pollardii*
TYPE LOCALITY: Biloxi, Harrison County, Mississippi.
DISTRIBUTION: Coastal plain, Church Island, North Carolina, to northern Florida, Alabama, and Mississippi.

*O. austrina*
TYPE LOCALITY: Miami, Florida.
DISTRIBUTION: Southern Florida.

*O. eburnispina*
TYPE LOCALITY: Coastal sands, Cape Romano, Florida.
DISTRIBUTION: Known only from Type Locality.

*O. bartrami* (Griffiths Bull. Torr. Bot. Club 46, p. 201, 1919.)
TYPE LOCALITY: Near New Smyrna, Florida.
DISTRIBUTION: Along the coast of Florida, in the region of New Smyrna.

**Elatiores series**

*O. zebrina*
TYPE LOCALITY: Middle Cape Sable, Florida.
DISTRIBUTION: Coastal sand dunes, Cape Sable, Florida, and the lower Florida Keys.

**Dillenianae series**

*O. stricta*
TYPE LOCALITY: Not given.
DISTRIBUTION: Western Cuba; Florida to southern Texas.

*O. bentonii* (Griffiths Ill. Studies Op. II, Missouri Bot. Garden, 22, 1912, p. 25.)
TYPE LOCALITY: Near McClenny, Florida.
DISTRIBUTION: From Fernandina, Florida to the mouth of the Brazos, southwest Louisiana and Texas.

*O. keyensis*
TYPE LOCALITY: Boot Key, Florida.
DISTRIBUTION: Hammocks, Florida Keys and Cape Sable.

*O. dillenii*
TYPE LOCALITY: Based on Dillenius's illustration.
DISTRIBUTION: Coasts of South Carolina, Florida, Bermuda, the West Indies, east coast of Mexico, and northern South America; extending inland in Cuba.

*O. maritima* (Griffiths Bull. Torr. Bot. Club 46, 1919, p. 204.)
TYPE LOCALITY: Not stated.
DISTRIBUTION: Along the Coast of Florida, in the Carolinas at one or two places on the west coast.

*O. ochrocentra*
TYPE LOCALITY: On edge of hammock, southeastern end of Big Pine Key, Florida.
DISTRIBUTION: Known only from type locality.

**Ficus-Indicae series**

*O. ficus-indica*
TYPE LOCALITY: Tropical America.
DISTRIBUTION: Native home not known, but now found all over the tropics and subtropics either as cultivated plants or as escapes. It is hardy in Bermuda and Florida.

**Ammophilae series**

*O. ammophila*
TYPE LOCALITY: Fort Pierce, Florida.
DISTRIBUTION: Inland sand dunes (scrub), peninsular Florida.

*O. turgida*
TYPE LOCALITY: About five miles south of Daytona, Florida.
DISTRIBUTION: Hammocks near Yulee and on the mainland along the Halifax River, south of Daytona, Florida.

## TRIBE CEREEAE
## SUBTRIBE CEREANAE

### Cephalocereus

*C. deeringii*
TYPE LOCALITY: Lower Matecumbe Key, Florida.
DISTRIBUTION: Rocky hammocks, Lower Matecumbe Key, Florida.

*C. keyensis*
TYPE LOCALITY: Hammock, Key West, Florida.
DISTRIBUTION: Key West, Big Pine Key, and Boca Chica Key, Florida.

**Acanthocereus**

*A. pentagonus*
TYPE LOCALITY: America, but no definite locality cited.
DISTRIBUTION: Keys of southern Florida; coast of Texas, south along the eastern coast of Mexico to Guatemala and Panama; the coasts of Colombia and Venezuela

and Guadeloupe. Introduced on St. Thomas and St. Croix. Recorded from Cuba.

*A. floridanus*
TYPE LOCALITY: Key Largo, Florida.
DISTRIBUTION: Hammocks, along or near the coast, southern peninsular Florida, adjacent islands, and Florida Keys.

**Harrisia**

*H. fragrans*
TYPE LOCALITY: Not cited.
DISTRIBUTION: Coastal sand dunes, Brevard and St. Lucie Counties, Florida. Collected on sand dunes 6 miles south of Fort Pierce.

*H. simpsonii*
TYPE LOCALITY: Not cited.
DISTRIBUTION: Found on Hammocks, Keys of Florida, and southern mainland coast. Also between Cape Sable and Flamingo.

*H. aboriginum*
TYPE LOCALITY: Not cited.
DISTRIBUTION: On shell-mounds, western coast of Florida, north of the Ten Thousand Islands to Tampa Bay and on Terra Ceia Island.

**Rhipsalis**

*R. cassutha*
TYPE LOCALITY: Not cited.
DISTRIBUTION: Florida, Mexico, Central America, West Indies, Panama to Dutch Guiana, eastern and southern Brazil, Colombia, Ecuador, Bolivia, and Peru, also in Ceylon and tropical Africa.

## GEORGIA

### OPUNTIEAE TRIBE

### OPUNTIA

**Subgenus Platyopuntia**

**Tortispinae Series**

*O. opuntia*
TYPE LOCALITY: In Virginia.
DISTRIBUTION: Sandy and rocky places from Massachusetts to Virginia, the mountains of Georgia and central Alabama extending north into southern Ontario, Canada (Point Pelee), west in isolated colonies to northern Illinois, eastern Missouri and Tennessee and long established in the mountains of northern Italy and Switzerland.

**Curassavicae Series**

*O. tracyi*
TYPE LOCALITY: Biloxi, Mississippi.
DISTRIBUTION: Southern Mississippi, southeastern Georgia to northern Florida.

## IDAHO

### OPUNTIEAE TRIBE

**OPUNTIA**

**Subgenus Platyopuntia**

**Opuntia**

*O. rhodantha*
TYPE LOCALITY: Colorado at 2,000 to 2,300 meters altitude.
DISTRIBUTION: Western Nebraska, Colorado, and Utah, Idaho.

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I wish to modify my statement made in last month's note calling for dealers to get together on a better price schedule. *Cephalocereus senilis* and *C. Trollii* were quoted as selling at ten cents each for one-year-old seedings. I have since been informed that this price was exaggerated, and that the correct price was but a nickel.